

## CLAIMS

1. An electron beam tube having a longitudinal axis and comprising a wall forming part of a vacuum envelope including a balance ring, a second component and means interposed between the wall including the balance ring and the second component arranged to allow relative sliding movement of the wall including the balance ring relative to the second component in a radial direction.
2. A tube as claimed in claim 1, in which the means comprises a member interposed between the first and second components.
3. A tube as claimed in claim 2, in which the member comprises an annulus.
4. A tube as claimed in claim 1, in which the means comprises a plurality of members interposed between the first and second components.
5. A tube as claimed in claim 4, in which each of the members comprises an annulus.
6. A tube as claimed in any preceding claim, in which the means includes material having a low coefficient of friction.
7. A tube as claimed in claim 1, in which the wall is of ceramic.
8. A tube as claimed in any preceding claim, in which the second component comprises part of a drift tube assembly.

9. A tube as claimed in claim 10, in which the part is a mounting plate for the drift tube.
- 5 10. An electron beam tube according to claim 1, wherein the balance ring is of ceramic.
- 10 11. An electron beam tube having a longitudinal axis and comprising a drift tube assembly, a wall forming part of a vacuum envelope including a balance ring and means interposed between the wall including the balance ring and the drift tube assembly arranged to allow relative sliding movement of the drift tube assembly relative to the wall including the balance ring in a radial direction.
- 15 12. An electron beam tube of the type having a longitudinal axis and a radial axis and comprising a wall, a balance ring and a mounting component, the wall forming part of a vacuum envelope and being coupled to the mounting component by the balance ring in the direction of the longitudinal axis, the electron beam tube further comprising a member interposed between the balance ring and the mounting component to allow relative sliding movement of the balance ring and the mounting component in a direction parallel to the radial axis.
- 20 25 13. An electron beam tube according to claim 12, wherein the balance ring is of ceramic.
- 30 14. An electron beam tube according to claim 12, wherein the mounting component is a mounting plate.

15. An electron beam tube according to claim 14, wherein the mounting plate is of copper, stainless steel or nickel.
- 5 16. An electron beam tube according to claim 12, wherein the member has a lower coefficient of friction than the balance ring and mounting component.
- 10 17. An electron beam tube according to claim 16, wherein the member is coated with friction-reducing material.
18. An electron beam tube according to claim 12, wherein the member comprises a layer of friction reducing material.

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